



State of New Hampshire  
DEPARTMENT OF ENVIRONMENTAL SERVICES

6 Hazen Drive, P.O. Box 95, Concord, NH 03302-0095  
(603) 271-3406 FAX (603) 271-7894



March 3, 2003  
**Letter of Deficiency**  
DSP #03-017

Ms. Dorothy Wagner  
Sawyers Mills Association Inc.  
One Mill Street  
Dover, NH 03820

RE: Sawyers Mill Upper Dam #067.07, Dover

Dear Ms. Wagner:

The Department of Environmental Services, Dam Bureau (DES) consistently strives to enhance the safety of dams in New Hampshire through its dam safety program. One of the many instruments that play a part in reaching this goal is our inspection program. DES is forwarding this correspondence to you to advise you that in accordance with RSA 482:12 and Env-Wr 502.02, an inspection of the subject dam was conducted on October 31, 2001. During this visual inspection and/or file review, the following deficiencies were observed:

- Leakage was noted at the bottom of the stoplog bay, right side. It is unclear the origin of this leakage. Access to the stoplog bay is via an 8-foot deep chamber;
2. There was vegetation growing in the stonework along the upstream right abutment wall and minor brush on the downstream side of the right abutment;
  3. There were many open joints in the granite stonework, allowing flow to enter and further erode the walls;
  4. There was leakage noted from the downstream face of the dam;
  5. It is unclear whether the low level gate is operational;
  6. There was vegetation growing in the impoundment along the upstream left end of the spillway;
  7. The emergency action plan (EAP) needs to be updated and a test of the emergency action plan notification flowchart needs to be conducted; and
  8. There is no operation and maintenance plan (O&M) on file with the DES.

DES believes that the above deficiencies can be corrected by performing the following items by the indicated schedule:

**June 1, 2003:**

1. Update the EAP and conduct a test of the EAP notification flowchart. Please contact Bethann McCarthy at 271-4167 before updating your EAP, for assistance in determining what changes may be necessary;

2. Prepare and submit to the DES a written O&M plan. The plan should describe the control of impoundment levels, monitoring and maintenance procedures, and identify emergency contact personnel. Refer to the enclosed guidelines;
3. Investigate and report on the leakage noted at the bottom of the stoplog bay, right side. Propose and schedule repairs if necessary;
4. Verify the operability of the low-level gate;
5. Remove brush and vegetation from the following areas:
  - a. Along the right abutment
  - b. From the stonework along the upstream right abutment wall;
  - c. In the impoundment along the upstream left end of the spillway; and

**October 1, 2003:**

6. Re-point the many open joints in the granite stonework that are allowing flow to enter and further erode the walls.

DES is requesting that you complete and submit the attached "Intent to Complete Repairs" form, within 30 days of receipt of this letter, that will provide for correction of the identified deficiencies by the date(s) indicated above. If you believe changes to the items of work or dates are necessary, please make the changes directly on the form and provide a brief explanation. We have enclosed a self addressed stamped envelope for you to return this form.

Due to the untimely nature of this correspondence in relation to the actual date of the dam safety inspection we will be conducting another inspection of the dam in the spring of 2003 and will contact you prior to the visit. However, the deficiencies noted are still pertinent to the overall maintenance and safety of the dam.

As a result of the inspection, a review of the downstream reach and dam breach analysis was conducted. This analysis resulted in the upgrade of the hazard classification of this dam from a significant hazard, Class B dam to a high hazard, Class C dam. The reasoning for this upgrade can be summarized in the following paragraph from the latest inspection report.

A simplified dam breach analysis predicted that during a stormy day breach (Q100) a breach of the upper dam would send floodwaters over the lower dam, located 300 feet downstream, with an overtopping depth of 7 feet. A flow of this magnitude would cause damage to the walkway located just below the upper dam, would send a wall of water directly toward apartments adjacent to the upper dam, and would cause flooding above the first floor elevation of the residences below the lower dam. This would constitute possible loss of life in the event of a dam breach. For these reasons this dam should be upgraded in hazard classification from a significant hazard dam, class "B", to a high hazard dam, class "C". There would also be a threat to public safety in the area of the wood frame apartments about 500' downstream of this dam located on Mill Street.


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As a result of this hazard classification upgrade the dam will be inspected by a NHDES Dam Safety Engineer every two years and the annual dam registration fee will be increased to \$600.00 for this dam.

Our intent in sending you this correspondence is to make you aware of items that DES believes warrant your attention to insure the continued safe operation of your dam. It is our hope that, through the submittal of the attached form and a commitment to keeping a well-maintained dam, you will voluntarily comply with the requested items of work. If we do not receive the intent form or a similarly adequate written reply, we will assume that you are in agreement with our findings and recommendations and DES will carry out follow-up inspections accordingly.

If you have any questions or comments regarding this Letter of Deficiency or would like to be present at future inspections, please contact me at 271-3406, or write to the Water Division at the address listed on the top of the previous page.

Sincerely,

  
**COPY**  
Grace E. Levergood, P.E.  
Dam Safety Engineer

Attachments Guideline for an O&M plan, DB8, DB13

cc: Gretchen Rule ✓

City of Dover

Bethann McCarthy, P.E., EAP Coordinator

Certified # 7200 1670 0000 0586 1674

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